

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WASHINGTON  
AT TACOMA

UNITED STATES OF AMERICA,

Plaintiff,

v.

WASHINGTON STATE DEPARTMENT  
OF TRANSPORTATION,

Defendants.

CASE NO. C05-5447RJB

OPINION INCLUDING  
FEDERAL RULE 52(a)  
FINDINGS OF FACT AND  
CONCLUSIONS OF LAW

This matter comes before the Court on the bench trial conducted on January 10 and January 12, 2007. Dkt. 176, 178. The Court has considered the testimony and arguments at trial, the parties' briefing, documents filed by the parties prior to trial, previous orders of the Court, the administrative record, and the remainder of the file herein.

**I. FACTUAL BACKGROUND**

The Palermo Wellfield Superfund Site ("the Site") is defined by groundwater contaminant plumes in Tumwater, Washington at, and in the vicinity of, the Palermo Wellfield ("PWF") and Palermo neighborhood. The Palermo Wellfield provides drinking water for the City of Tumwater ("the City"), Washington. The Palermo Wellfield is adjacent to a residential neighborhood in the Palermo Valley, a lowland located in the Deschutes River floodplain. The neighborhood consists of detached, single-family homes bordered on the southeast by the well field, to the northeast by the Tumwater Municipal Golf Course, and to the west by the Palermo Bluff. The Palermo Bluff, a sixty foot rise in elevation from east to west, separates the Palermo Valley (approximately 100

1 feet above sea level) from the Palermo Uplands (approximately 160 feet above sea level). The  
2 Palermo Bluff is approximately 800 feet west of the Palermo Wellfield. Continuing west from the  
3 Palermo Bluff, the Palermo Uplands encompasses commercial and residential parts of Tumwater.  
4 Interstate highway ("I-5") transects the Uplands portion of the Site from southwest to northeast.  
5 Groundwater flows generally from the west to the east/northeast.

6 In August of 1993, the City of Tumwater conducted routine drinking water quality testing  
7 and discovered trichloroethylene ("TCE") in water from three wells (Wells 2, 4, and 5) at the  
8 Palermo Wellfield. The Palermo Wellfield provides drinking water for 5,600 residents of the City  
9 of Tumwater. In one of the wells tested, the TCE level was over the drinking water standard  
10 maximum contaminant level ("MCL") of 5 parts per billion ("ppb"). The water was retested over  
11 the next several days, and the results were confirmed. The parties do not dispute that this  
12 contamination was attributable, in part, to a Washington State Department of Transportation  
13 ("WSDOT") testing laboratory operated during the late 1960s and early 1970s and, possibly, to a  
14 currently operated WSDOT materials testing lab. Other possible sources for the contamination,  
15 including the Southgate Dry Cleaners and the Brewery City Pizza location, have also been  
16 identified. The parties agree that TCE at the Site is attributable, in part, to biodegradation of  
17 perchloroethylene ("PCE") to TCE. There is no evidence in the record, and the parties did not  
18 offer evidence or testimony at trial, demonstrating the rate or extent of such biodegradation.

19 The City removed the three contaminated wells from service. The City then installed two  
20 new wells, which provided water capacity greater than the capacity of the wells taken out of  
21 service. 1048074.<sup>1</sup>

22 To address its water quality concerns, the City sought the Environmental Protection  
23 Agency's ("EPA") assistance in September of 1993. The EPA completed a Phase I CERCLA  
24 Assessment in March of 1995, a removal assessment at Southgate Dry Cleaners in May of 1995,  
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26 <sup>1</sup> In references to the administrative record, the Court cites the seven-digit document identification  
27 numbers of documents in the Certified Remedial Administrative Record and Certified Removal Administrative  
28 Record. Except as indicated, the Court has considered only documents in the Certified Removal Administrative  
Record when evaluating the removal action and only documents in the Certified Remedial Administrative record  
when evaluating the remedial action.

1 an Expanded Site Investigation in 1996, and a second removal assessment in March of 1997. The  
2 Site was added to the National Priority List on April 7, 1997.

3 On July 3, 1997,<sup>2</sup> the EPA issued an Action Memorandum, authored by the EPA On-  
4 Scene Coordinator, selecting removal actions. 1048496. Later action memoranda approved a  
5 ceiling increase and an exemption of the two million dollar limit for removal actions and an  
6 exemption of the twelve month limit for removal actions. 1048789, 1105726. Removal actions  
7 were initiated at the Site in March of 1998. One such action was installation of a soil vapor  
8 extraction (“SVE”) system at the former Southgate Dry Cleaners, the purpose of which was to  
9 remove PCE from soil and halt its release to groundwater. The SVE system began operation in  
10 1998 and was decommissioned in June of 2000. The second component of the removal was the  
11 EPA’s installation of two air strippers at the Palermo Wellfield. An air stripper transfers  
12 contaminants from water to air by blowing air upward as water flows downward. 1224288-0021.  
13 The air is then treated before being discharged. *Id.* Construction of the air stripping system was  
14 completed in February of 1999.

15 On November 16, 1998, the Regional Administrator for EPA Region 10 signed a Record  
16 of Decision (“ROD”) documenting the long-term remedial action that the EPA selected for the  
17 Site. The selected remedy incorporated the continued operation of the wellhead treatment and  
18 SVE systems. It also selected construction of a subdrain (“french drain”) system to collect  
19 groundwater containing TCE and PCE surfacing in the area of residences at the base of the  
20 Palermo Bluff. On-site construction of the subdrain system began on August 8, 2000, and the  
21 system continues to operate.

## 22 **II. PROCEDURAL BACKGROUND**

23 The United States brought suit against the WSDOT and Southgate Development Co., Inc.  
24 (“Southgate”) in federal court, asserting that the defendants are liable under the Comprehensive  
25 Environmental Response, Compensation, and Liability Act of 1980, as amended (“CERCLA”), 42  
26 U.S.C. §§ 9607(a), 9613(g)(2), for “response costs” incurred and to be incurred by the EPA and  
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28 <sup>2</sup> The Action Memorandum is dated June 27, 1997, but was signed with approval on July 3, 1997.

1 the U.S. Department of Justice as a result of releases of hazardous substances at the Palermo  
2 Wellfield Superfund Site in Tumwater, Washington. The plaintiff's claims against Southgate are in  
3 the process of being resolved by settlement. A consent decree has been filed but has not yet been  
4 approved by the Court. No other potentially responsible parties have been identified, and the  
5 WSDOT is the only remaining active defendant. The plaintiff seeks to impose joint and several  
6 liability on the WSDOT for \$11,420,040.26 for costs incurred through December 2005.

7 By agreement of the parties, the WSDOT presented testimony and argument at trial first,  
8 and the United States responded. The administrative record in this case is lengthy and filled with  
9 scientific data. The Court is not concerned with merely the quantity of data in the record,  
10 however. The Court's inquiry is whether the record supports the EPA's actions, and this inquiry  
11 requires that the EPA's conclusions be linked with specific pieces of evidence in the record. The  
12 United States was therefore required to offer detailed and specific references to the administrative  
13 record to refute the WSDOT's arguments. The Court was disappointed by the plaintiff's inability  
14 or unwillingness to refer to specific portions of the administrative record in direct response to the  
15 defendant's claims.

#### 16 **A. THE ADMINISTRATIVE RECORD**

17 As the parties are surely aware, the treatment of the administrative record in this case has  
18 been extremely problematic. *See* Dkt. 152 (Order Granting in Part and Denying in Part WSDOT's  
19 Motion to Supplement the Administrative Record). On June 29, 2006, the United States moved  
20 for a protective order and to limit discovery to the EPA's administrative record. Dkt. 57. On July  
21 11, 2006, while the plaintiff's motion was pending, the EPA added documents to the  
22 administrative record in response to the EPA's On-Scene Coordinator's determination that  
23 documents considered or relied upon by the EPA had been omitted. Dkt. 128-1 at 3, 128-7, Exh.  
24 6 at 2 (memorandum requesting addition of documents to Removal Administrative Record). All  
25 but one of these documents were omitted from the administrative record but were included in the  
26 Site File. Dkt. 128-7, Exh. 6 at 2. The plaintiff filed its reply on the same day that the documents  
27 were added and did not inform the Court or opposing counsel that the administrative record had  
28 changed. *See* Dkt. 69-1 (plaintiff's reply). On July 17, 2006, the Court granted the plaintiff's

1 motion. Dkt. 70.

2 The administrative record was not certified and filed with the Court until October 12,  
3 2006. Dkt. 136 (compact discs containing Certified Remedial Administrative Record and Certified  
4 Removal Administrative Record filed). Upon motion by the WSDOT, the Court held that certain  
5 exhibits would be considered as supplemental materials to the record. Dkt. 152. Due primarily to  
6 the fact that the an Action Memorandum and other materials that both parties agreed should be  
7 included but would otherwise be excluded from the record, the Court reluctantly declined to  
8 exclude the documents added by the On-Scene Coordinator. Dkt. 152. The Court's findings and  
9 conclusions are therefore based upon the administrative record as filed with the Court in compact  
10 disc format and in hard copy and the attached supplemental materials.

11 In response to a request by the Court and to comply with court rules, the plaintiff also  
12 filed paper copies of the Removal Action Administrative Record and the Joint Condensed  
13 Remedial Action Administrative Record with the Court on November 2, 2006. Dkt. 156.  
14 Unfortunately, the copies of the Remedial Administrative Record were not in numerical order and  
15 the organization of the binders provided to the Court were such that it was extremely difficult to  
16 discern which binders housed which documents. Navigation of the record by the Court has been  
17 extremely time consuming.

18 The compact disc version of the administrative record has also proven to be problematic.  
19 As an example, a computer file named 1044966 and found on the compact disc containing the  
20 Certified Removal Administrative Record actually contains the document 1044996. While  
21 document 1044966 is included in the Court's paper copies, it appears to be either excluded from  
22 or mislabeled in the compact disc version. The Court notes that document 1048502 is nearly  
23 identical to document 1044966.

24 Also, the compact discs filed with the Court appear to be copies of the record and not the  
25 record themselves; they bear the name of this case on the labels, and the indices and tables of  
26 contents on the discs are actually copies of documents filed in this case, bearing the case and  
27 docket numbers on the top of each page. These and other problems raise serious concerns about  
28 the reliability, accuracy, and completeness of the administrative record and about the

government's actions at the Site.

## **B. COSTS**

The United States seeks a total of \$11,420,040.26 from the WSDOT and to impose joint and several liability. Dkt. 154-1. By stipulation of the parties, this amount is not in dispute. Dkt. 165. The United States does not seek costs of the SVE from the WSDOT. *Id.*

## **C. LIABILITY**

The Court previously held that the WSDOT is liable under CERCLA (Dkt. 160 at 8), leaving the following issues for trial: (1) Whether the United States incurred "response" costs within the meaning of CERCLA Section 101 (25), 42 U.S.C. §9601 (25), rendering defendant WSDOT liable under Section 107(a)(2) of CERCLA, 42 U.S.C. §9607 (a)(2); (2) Whether the removal actions taken by the United States were inconsistent with the National Contingency Plan; and (3) Whether construction of the air strippers at the Palermo Wellfield falls within the statutory definition of a removal action. Dkt. 154-1 at 9 (Pretrial Order).

## **III. STATUTORY SCHEME**

CERCLA was enacted to facilitate "expeditious and efficient cleanup of hazardous waste sites." *Carson Harbor Village, Ltd. v. Unocal Corp.*, 270 F.3d 863, 880 (9th Cir. 2001). Its secondary purpose is to hold responsible parties accountable for cleanup efforts. *Id.* CERCLA accomplishes these goals by imposing strict liability on owners and operators of facilities where releases of hazardous substances occur. *Id.* at 870. This liability is joint and several, subject to statutory defenses set forth in 42 U.S.C. §9607(b). *See California v. Montrose Chemical Corp. of California*, 104 F.3d 1507, 1518 n.9 (9th Cir. 1997).

Under CERCLA, the President's authority to initiate response actions is broad:

(a) Removal and other remedial action by President; applicability of national contingency plan; response by potentially responsible parties; public health threats; limitations on response; exception

(1) Whenever (A) any hazardous substance is released or there is a substantial threat of such a release into the environment, or (B) there is a release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare, the President is authorized to act, consistent with the national contingency plan, to remove or arrange for the removal of, and provide for remedial action relating to such hazardous substance, pollutant, or contaminant at any time (including its

removal from any contaminated natural resource), or take any other response measure consistent with the national contingency plan which the President deems necessary to protect the public health or welfare or the environment.

42 U.S.C. §9604(a)(1).

CERCLA and the National Contingency Plan ("NCP") divide response actions into two categories: removal actions and remedial actions. *U.S. v. W.R. Grace & Co.*, 429 F.3d 1224, 1237 (9th Cir. 2005). Removal actions are defined as follows:

The terms "remove" or "removal" means [sic] the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 9604(b) of this title, and any emergency assistance which may be provided under the Disaster Relief and Emergency Assistance Act [42 U.S.C.A. § 5121 et seq.].

42 U.S.C. §9601(23). Remedial actions are defined as follows:

The terms "remedy" or "remedial action" means [sic] those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches, or ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, onsite treatment or incineration, provision of alternative water supplies, and any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost-effective than and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare; the term includes offsite transport and offsite storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials.

42 U.S.C. §9601(24). Distinguishing between removal and remedial actions is critical under CERCLA because the requirements for remedial actions are more detailed and onerous. *See, e.g., W.R. Grace & Co.*, 429 F.3d at 1226 ("For example, a remedial action requires certain analysis of the costs and effectiveness of the remediation and also requires inclusion on the National Priority



1 List. See 40 C.F.R. §§300.425(b)(1), 300.430(e)(7).”).

2 To recover its costs for engaging in response actions, the EPA must prove as follows: (1)  
3 the site at which the actual or threatened release of hazardous substances occurred constitutes a  
4 “facility” under 42 U.S.C. §9601(9); (2) there was a “release” or “threatened release” of a  
5 hazardous substance; (3) the party is within one of the four classes of persons subject to liability  
6 under 42 U.S.C. §9607(a); and (4) the EPA incurred response costs in responding to the actual or  
7 threatened release. *See U.S. v. Chapman*, 146 F.3d 1166, 1169 (9th Cir. 1998); 42 U.S.C.  
8 §9607(a)(4)(A) (defendants may be held liable for “all costs of removal or remedial action  
9 incurred by the United States Government or a State or an Indian tribe not inconsistent with the  
10 national contingency plan”).

11 The burden then shifts to the defendant to prove that the government’s action in  
12 responding was inconsistent with the NCP. *Chapman*, 146 F.3d at 1169. To prove inconsistency  
13 with the NCP, the defendant must demonstrate that the response actions were arbitrary and  
14 capricious or otherwise not in accordance with law. *See Washington State Dept. of Transp. v.*  
15 *Washington Natural Gas Co.*, 59 F.3d 793, 802 (9th Cir. 1995). An agency’s decision is arbitrary  
16 and capricious if the agency “relied on factors which Congress has not intended it to consider,  
17 entirely failed to consider an important aspect of the problem, offered an explanation for its  
18 decision that runs counter to the evidence before the agency, or is so implausible that it could not  
19 be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n*  
20 *of U.S., Inc. v. State Farm Mut. Auto.*, 463 U.S. 29, 43 (1983).

21 Judicial review of the EPA’s response is governed by statute:

22 (j) Judicial review

23 (1) Limitation

24 In any judicial action under this chapter, judicial review of any issues concerning  
25 the adequacy of any response action taken or ordered by the President shall be  
26 limited to the administrative record. Otherwise applicable principles of  
administrative law shall govern whether any supplemental materials may be  
considered by the court.

27 (2) Standard

28 In considering objections raised in any judicial action under this chapter, the court  
shall uphold the President's decision in selecting the response action unless the  
objecting party can demonstrate, on the administrative record, that the decision



1 was arbitrary and capricious or otherwise not in accordance with law.

2 (3) Remedy

3 If the court finds that the selection of the response action was arbitrary and  
4 capricious or otherwise not in accordance with law, the court shall award (A) only  
5 the response costs or damages that are not inconsistent with the national  
6 contingency plan, and (B) such other relief as is consistent with the National  
7 Contingency Plan.

8 (4) Procedural errors

9 In reviewing alleged procedural errors, the court may disallow costs or damages  
10 only if the errors were so serious and related to matters of such central relevance  
11 to the action that the action would have been significantly changed had such errors  
12 not been made.

13 42 U.S.C. §9613(j).

14 **IV. DISCUSSION**

15 The EPA seeks to recover response costs from the WSDOT, and the WSDOT seeks to  
16 avoid payment of those costs. The WSDOT alleges that certain aspects of both the removal and  
17 remedy selected and implemented by the EPA were arbitrary and capricious or otherwise not in  
18 accordance with law and therefore inconsistent with the NCP.

19 **A. REMOVAL ACTION**

20 To determine whether the EPA is entitled to recover response costs for a removal action,  
21 courts engage in a two-step inquiry. First, the decision to conduct a removal action must be  
22 upheld unless the defendant demonstrates on the administrative record that the decision was  
23 arbitrary and capricious or otherwise not in accordance with law. *See W.R. Grace & Co.*, 429  
24 F.3d at 1233. Second, the action taken by the EPA must be properly characterized as a removal  
25 action. *Id.* Here, the WSDOT contends that the decision to install the air strippers as a removal  
26 action was arbitrary and capricious and that the air strippers were improperly characterized as a  
27 removal action rather than as a remedial action. As detailed below, the Court concludes that the  
28 WSDOT is successful in arguing both points but that the WSDOT may nevertheless be  
responsible for some, or all, of the response costs.

**1. Arbitrary and Capricious or Otherwise not in Accordance with Law**

In the first step of the analysis, the EPA's decision to conduct a removal action must be upheld unless the defendant demonstrates on the administrative record that the decision was arbitrary and capricious or otherwise not in accordance with law. *See id.* This burden recognizes that selecting a particular response requires specialized knowledge and expertise and is within the discretion of the government. *Washington State Dept. of Transp.*, 59 F.3d at 802.

The scope of review under the "arbitrary and capricious" standard is narrow and limited to determining whether the decision is based upon a consideration of the relevant factors and is not a clear error of judgment. *Motor Vehicle Mfrs. Ass'n of U.S., Inc.*, 463 U.S. at 43. The agency must articulate a satisfactory explanation for its action based upon an examination of the relevant data, and the reviewing court will not substitute its judgment for that of the agency. *Id.* An agency's decision is arbitrary and capricious if the agency "relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Id.* The reviewing court will "uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned" but should not "supply a reasoned basis for the agency's action that the agency itself has not given." *Id.*

The NCP provides that the EPA may initiate appropriate removal action if it determines that there is "a threat to public health or welfare of the United States or the environment," based upon the following factors:

- (i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;
- (ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- (iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;
- (iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;
- (v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

1 (vi) Threat of fire or explosion;

2 (vii) The availability of other appropriate federal or state response mechanisms to respond  
3 to the release; and

4 (viii) Other situations or factors that may pose threats to public health or welfare of the  
5 United States or the environment.

6 40 C.F.R. §300.415(b). There is no precise formula for determining whether the EPA's  
7 consideration of these factors is sufficient, and the *W.R. Grace* case offers only limited guidance.  
8 In that case, the EPA's decision to conduct a removal was upheld where the EPA's "findings  
9 [we]re extensively documented" and the memorandum "detail[ed] specific threats" with "carefully  
10 documented reasoning." *See W.R. Grace & Co.*, 429 F.3d at 1233.

11 Here, the EPA considered and made findings regarding the first, second, fourth, and fifth  
12 factors in determining that there were threats to public health or welfare and regarding the second  
13 and fourth factors in determining that there were threats to the environment. Based upon these  
14 findings, the EPA concluded, "Actual and threatened release of hazardous substances from this  
15 site, if not addressed by implementing the response action selected in this action memorandum,  
16 may present an imminent and substantial endangerment to public health, or welfare, or the  
17 environment." 1048496-0028.

18 **a. Actual or potential exposure to nearby human populations, animals, or the  
19 food chain**

20 At trial, the WSDOT contended that the EPA's consideration of the first factor was  
21 arbitrary and capricious because the mere presence of hazardous substances is insufficient to  
22 justify a removal and that to hold otherwise would allow the EPA to routinely circumvent the  
23 more arduous requirements for remedial action. The 1997 Action Memorandum's consideration  
24 of the first factor in determining that there was a threat to public health or welfare is as follows:

25 TCE, PCE and other VOC contamination exist in ground water, surface water, and soils  
26 on site. The maximum contaminant level (MCL) for TCE is 0.005 mg/l.<sup>3</sup> ATSDR has  
27 derived an intermediate-duration inhalation minimum risk level (MRL) of 2 ppm and an

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28 <sup>3</sup> To make excerpts of the Action Memorandum more readable, the Court has excluded some parenthetical  
citations contained in the Action Memorandum and instead presented the citations verbatim by footnote. The  
citation omitted from this portion of the Action Memorandum is as follows: "(EPA 1989c (40 CFR 141, 142, 143)  
ATSDR TP-92/18)."

oral MRL dose of 0.7 mg/kg/day, based on rat studies.<sup>4</sup> A PCE acute inhalation minimum risk level is 0.6 ppm. The total VOC's in soil to 1,967 ppb PCE (97020752, VM-3 at 5 BGS) are detected at Southgate Mall (See Appendix III).

1048496-0024.

This relatively short explanation fails to articulate how the concentration levels listed result, or potentially result, in exposure to humans, animals, or the food chain and does not reference data in the record that may support this conclusion. In addition, the connection between inhalation minimum risk levels and the proposed removal action is unclear. At trial, the United States referenced data supporting the EPA's concern that the contaminant plume would migrate and affect uncontaminated wells that were in operation, data that are addressed in more detail below, but failed to articulate the factual underpinnings for this particular factor. The EPA's conclusion that there was actual or potential exposure to nearby human populations, animals, or the food chain that may be imminent and substantial is not supported by the record.

**b. Actual or potential contamination of drinking water supplies or sensitive ecosystems**

The 1997 Action Memorandum lists the second factor as a basis for concluding that there was a threat to public health or welfare or the environment such that a removal action was appropriate. This factor was considered at more length and appears to be one of the more significant considerations in determining that a removal action was proper. The 1997 Action Memorandum's consideration of the second factor with respect to a threat to public health or welfare is as follows:

The City can no longer meet sustained peak demand days. Due to contamination, the city has actively rationed water since 1993. There is no other available water supply in the area. The TCE concentrations in ground water have been observed to exceed the maximum contaminant level (MCL) for drinking water. The total TCE concentration levels in groundwater measured on site from the groundwater drinking water well is 13.3 ppb (PFW-2) based on samples taken August 6, 1996.<sup>5</sup> This is over 2 times the

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<sup>4</sup> "(ATSDR TP92/19, pg. 107)."

<sup>5</sup> "(Palermo Well Field TCE Test Results, (See Appendix I)[])."

1 maximum contaminant level (MCL) for drinking water, which is five (5) ppb.<sup>6</sup>  
2 Groundwater samples to 824 ppb were detected at Rainier and “O” Street in the ground  
3 water (35 feet BGS Weston-GP-13) approximately 500 feet upgradient of the PWF  
4 municipal wells (Weston, 1996). This is 164 times the maximum contaminant level (MCL)  
5 for drinking water which is 5 ppb.<sup>7</sup> Historic (March, 1996) monitoring well analyses show  
6 TCE concentrations to 98.8 ppb and PCE concentrations to 0.74 ppb PCE from depths of  
7 92 feet BGS, (MW-09) (WDOH, 1996)[.] At twenty-five (25) feet BGS near “N” street,  
8 TCE concentrations to 113.15j ppb (97020978, GP 12) were detected. At five (5) BGS  
9 near Rainier Avenue and “N” street, TCE concentrations to 41.33 ppb (97020965, GP-11)  
10 were detected from 700 feet west of PWF municipal wells (START, 1997) (See Appendix  
11 III).

12 1048496-0024-25. The 1997 Action Memorandum’s conclusion with respect to a threat to the  
13 environment is nearly identical to this excerpt.

14 The EPA’s conclusion that there was actual or potential contamination of drinking water  
15 supplies is essentially based upon the EPA’s finding that the City could not meet demands for  
16 clean drinking water and that contamination levels exceeded the MCL. The WSDOT contends  
17 that both of these conclusions were arbitrary and capricious because they contradict evidence in  
18 the record and other evidence that should have been considered.

19 First, the evidence that the City could not meet customer demands for clean drinking  
20 water is virtually nonexistent. Earlier in the Action Memorandum, a personal communication with  
21 Jay Eaton is cited as a basis for the conclusion that the City “will not be able to meet sustained  
22 peak demand days for summer.” 1048496-0007. The year in which the communication took place  
23 is 1997, but no other details are given. There is no record or transcript of this conversation in the  
24 administrative record. In light of the EPA’s handling of the administrative record in this case,  
25 addressed above, the Court cannot rely on the On-Scene Coordinator’s recollection as probative  
26 evidence of the City’s alleged water shortages.

27 Second, the conclusion fails to take into account other evidence in the record. For  
28 example, the 1992 Final Report of the City of Tumwater Groundwater Supply Planning Project  
recommended replacement of Wells 1 and 2 and redevelopment or replacement of Wells 4 and 5

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<sup>6</sup> “(40 CFR Section 261.52).”

<sup>7</sup> “(EPA 1989c (40 CFR Sections 141, 142, 143, and 261.52)[.])”

1 due to well inefficiencies that resulted in the wells not being able to fully utilize the Qva aquifer  
 2 potential or the City's anticipated water right of 3,050 gallons per minute. 1044991-0009. In  
 3 other words, the contaminated wells (Wells 2, 4, and 5) were likely already slated for replacement  
 4 or redevelopment before the contamination was discovered. Also, the lost pumping capacity from  
 5 Wells 2, 4, and 5 was compensated for by the construction of two new wells in 1994. Lead and  
 6 Copper Rule Corrosion Control Study at 10 ("The combined capacity of Wells 12, 14, and the  
 7 uncontaminated Palermo Wells is approximately 2.4 times greater . . . . Therefore, with  
 8 transmission storage improvements, Tumwater should be able to meet its future peak demands . .  
 9 . ."); 1048074 (EPA Fact Sheet stating, "Two new drinking water wells have been developed and  
 10 are currently operating in the southwest area of Tumwater. These wells have replaced the water  
 11 supply lost due to the contamination of the Palermo Wellfield."). Finally, the conclusion does not  
 12 account for the City's blending of well water, the result of which was that water delivered to  
 13 customers did not exceed the MCL. *See* 1105220-0017 (Record of Decision notes that the City  
 14 analyzed composite samples), 1048079-0002 ("Because of the blending of water from several  
 15 wells, it is highly unlikely that blended water flowing into the distribution system from the  
 16 wellfield ever exceeded the standard." ).<sup>8</sup>

17 The EPA's conclusion that the contamination would impact the quantity and quality of  
 18 well water actually delivered to customers is not supported by the record and fails to take into  
 19 account critically important aspects of the problem.

20 **c. High levels of hazardous substances or pollutants or contaminants in the**  
 21 **soil largely at or near the surface, that may migrate.**

22 The EPA's consideration of the fourth factor also appears to be a significant component of  
 23 the EPA's conclusion that a removal action was warranted. The EPA concluded as follows:

24 VOC's, including TCE and PCE are observed in the soils and in the ground water on site.  
 25 Soils and ground water underlying and adjacent to the operating Southgate Dry Cleaner

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26 <sup>8</sup> These documents, the Record of Decision and a 1993 City of Tumwater press release, are not part of the  
 27 removal record. The Court has previously held that "consideration of supplemental materials is warranted to  
 28 determine whether the EPA sufficiently considered all relevant factors and sufficiently explained its decision with  
 respect to the City's inability to meet demand for uncontaminated drinking water." Dkt. 152 at 9. These documents  
 evidence the City's blending of well water and have been considered by the Court.

1 facility showed elevated levels of PCE volatile organic compounds (VOC) to 97,000 ppb  
 2 PCE in soils (T5060310) at 2.5BGS and 26,000 ppb PCE in soils (T5060311).<sup>9</sup> Ground  
 3 waters adjacent to the Southgate Dry Cleaners show elevated levels of PCE to 949.12j  
 4 ppb (START, 1997). Ground water contamination in the Palermo Valley residential area  
 5 near the corner of Rainier street and "O" street, approximately 600 feet west (upgradient)  
 6 of the PFW wells, show levels of contamination to 824 ppb TCE (at 25 BGS) (Weston,  
 7 1996). Ground water contamination in the Palermo valley residential area at the eastern  
 8 end of the "N" street (200 feet east of Palermo Avenue), approximately 200 feet north of  
 9 the PFW [sic] wells, show 113.15j ppb TCE (START, 1996) in March, 1997, where "non-  
 10 detect" levels were observed in 1995 in the ESI (Weston 1996). Historically, seeps in the  
 11 Palermo neighborhood west of the Rainier Street houses are reported to have shown TCE  
 12 at 48 ppb (CR01, Weston 1996) (also 27 and .64 ppb) and PCE at 81 ppb (CR01, Weston  
 13 1996) (also 32 ppb) (See Appendix II).

14 At 0-20 feet BGS in front of Southgate Mall's Southgate Dry Cleaner (5141 Capitol Blvd)  
 15 and adjacent store fronts (video, hardware, beauty salon and toy stores), high PCE levels  
 16 to 1,197 ppb PCE (97020752, VM-3 at 5 BGS) and commonly 100-1500 ppb PCE were  
 17 detected, based on seven (7) test wells . . . split spoon sampled at five foot intervals (5, 10,  
 18 15, and 20 feet BGS) in the vadose zone.

19 1048496-0025. The EPA's conclusion with respect to threats to the environment is nearly  
 20 identical but adds the following:

21 The site is within the Deschutes river drainage basin, which supports a variety of  
 22 important marine species including the salmonids. Elevated levels of TCE (to 824 ppb)  
 23 measured at the site in the ground water are of primary concern, as TCE is toxic to marine  
 24 species. Acute marine water quality guidance level of TCE is 2,000 ppb.<sup>10</sup> Direct contact  
 25 and inhalation to fauna and flora are pathways to the food chain.

26 1048496-0027-28. The EPA was concerned that the contamination was worsening, migrating  
 27 toward the well field to contaminate the remaining wells, or both. For example, the 1997 Action  
 28 Memorandum notes a "rapid increase of TCE observed at depth 70-90 BGS (80-100 feet above  
 29 sea level) and east of the Palermo Bluff in seeps and ground water 0-35 BGS (80-110 ASL)."<sup>11</sup>

30 1048496-0023. The 1998 Action Memorandum contends that without a twelve month exemption,  
 31 "the contaminant plumes will continue to migrate and continue to impact more ground waters  
 32 used for human consumption." 1105726. Notably, the EPA apparently did not examine how much  
 33 more time installation of the air strippers would have required if done as part

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<sup>9</sup> "(South Gate Dry Cleaners Trip Report, TAT 1996)."

<sup>10</sup> "(NOAA Coastal Resource Coordinator correspondence, May 25, 1995)."

<sup>11</sup> "(See: Brewery City Pizza Removal Assessment, Ecology and Environment) (START 1997)."



1 of a remedial action rather than as a removal in determining that there was insufficient time to  
2 conduct a remedial action.

3 The support for this conclusion falls into three, general categories: (1) the contaminant  
4 plume was upgradient from the wells and groundwater generally flows in the direction of the  
5 wells; (2) letters from various governmental officials expressed concern that the plume would  
6 reach uncontaminated wells; and (3) data showed high concentrations of contaminants where  
7 previous tests had revealed non-detect levels.

8 **i. Plume upgradient**

9 The parties agree that the contaminant plume was upgradient from the wells and that  
10 groundwater in the area generally flows towards the well field, although they disagree as to the  
11 precise path of the groundwater. While evidence that water generally tends to migrate from the  
12 alleged contamination sources to the well field may be a sufficient basis to begin a remedial action,  
13 it is unclear how this evidence may be used to support a time-sensitive removal. In other words,  
14 the groundwater path does not evidence the *rate* of migration. The parties agree that at least some  
15 of the contamination is traceable to events that occurred in 1970. Dkt. 154-1 at 5. The Court  
16 therefore concludes that the record of evidence of groundwater flow does not demonstrate how  
17 this contamination, of which the City and the EPA had been aware since 1993, became an urgent  
18 concern in 1997.

19 **ii. Letters from governmental officials**

20 Several letters from governmental officials evidence a concern that contaminants would  
21 migrate and infect the remaining wells: The City Administrator wrote a letter to the EPA in June  
22 of 1996 stating, “[O]ur consultant believes that, under one scenario outlined in their comments of  
23 May 31, 1996, TCE from the southernmost area of the identified plume may be headed for the  
24 three contaminated wells that remain operational in the Palermo wellfield.” 1048502. The  
25 Director of the Environmental Health Division, Thurston County Department of Public Health  
26 and Social Services wrote a letter in June of 1996 expressing a concern that “the contamination  
27 will reach not only the remaining Tumwater wells, but other wells in the area causing further  
28 public health implications to the users.” 1044967. In July of 1996, the Director of the Washington

1 State Department of Ecology sent a letter to Governor Mike Lowry accompanied by briefing that  
2 included this assessment: “The threat to the drinking water supply at the Palermo Wellfield is an  
3 urgent problem that requires quick remedial actions.” 1044974-0003. In August, Governor Lowry  
4 sent a letter to the EPA recommending that the Site be listed on the National Priority List in light  
5 of the Department of Ecology’s conclusions and “the city’s agreement on the need for emergency  
6 action to protect their drinking water supply.” 1062752. These letters evidence various  
7 governmental officials’ conclusions that the contaminant plume was expected to migrate towards  
8 and affect the well field. These conclusions are professedly or impliedly based upon scientific  
9 evidence but do not constitute scientific evidence themselves. While perhaps sufficient to justify  
10 further testing or other action at the Site, the Court concludes that these letters are an insufficient  
11 basis upon which to conclude that a removal action was necessary.

### 12 **iii. Worsening contamination**

13 At trial, the United States pointed to the September 1993 Pacific Groundwater Group  
14 (“PGG”) Summary Report as evidence that the contamination of the well field was persistent and  
15 followed a worsening trend. The PGG Report is based upon well water samples collected from  
16 August 12, 1993, to August 22, 1993. 1044992-0006. It is difficult to see how a report issued so  
17 soon after TCE was first discovered at the Palermo Wellfield can be said to justify emergency  
18 action years later. While the report does generally depict a pattern of increased contamination in  
19 Wells 2, 4, and 5, the pattern spans less than one month. *See* 1044992-0010. The PGG Report  
20 also has admitted limitations by virtue of being issued so soon after the contamination was  
21 discovered:

22 All interpretations and recommendations are based on limited field data. The full extent of  
23 TCE in groundwater, and the source of TCE have not been characterized. The computer  
24 model used was not calibrated, the results of which are only estimates. The distribution  
25 and concentration of TCE in groundwater may increase or decrease in the future.

26 *See* 1044992-0005. In addition, the PGG Report does not appear to support the plaintiff’s  
27 contention that uncontaminated wells were in jeopardy due to migration of the plume. *See id.*  
28 (“Computer modeling of a limited scope indicates that the clean wells are not likely to be  
impacted by the known TCE in the groundwater.”).

1 Sampling of the three contaminated wells over a longer period of time shows fluctuating  
2 levels of TCE in all wells. 1048496-0042. The changing levels in Well 2 may be characterized as  
3 an upward trend. Wells 4 and 5 never had TCE concentrations above the MCL, and there are  
4 several intervals during which sampling revealed non-detect levels for these wells. *Id.*

5 The only other evidence suggesting that the plume was migrating towards the well field is  
6 of questionable reliability. The one data point identified as evidence of migration is Geoprobe 12  
7 (“GP 12”). *See* 1048496-0096. It is located on N Street, east of Palermo Avenue. 1048496-0097.  
8 Data from 1996 show TCE concentrations of 113.15j ppb 25 feet below ground at GP 12.  
9 1048496-0025, 0070, 0096. At all other elevations, the TCE level for GP 12 was “20U.”  
10 1048496-0070, 0096, 0078 (According to the key, “U” means that “[t]he material was analyzed  
11 for but not detected. The associated numerical value is the estimated sample quantitation limit.”).  
12 According to the 1997 Action Memorandum, this is the location where “‘non-detect’ levels were  
13 observed in 1995 in the ESI [Expanded Site Inspection Report] (Weston 1996).” 1048496-0025.  
14 To determine whether non-detect levels were indeed reported in this location in 1995, the Court  
15 has attempted to locate the data supporting this statement.

16 Looking at the April 1996 Expanded Site Inspection Report (“ESI”), it appears that TCE  
17 levels were non-detect near this location when tested during the Phase 1 investigation. *See*  
18 1101484-0033 (“TCE (or PCE) was not detected in Phase 1 groundwater samples collected  
19 approximately 100 feet north (station 43) and 50 feet south (Station 40).”). Phase 1 occurred in  
20 October and November of 1994, not 1995 as suggested by the Action Memorandum. 1101484-  
21 0012. Sampling Station 43 is located on Rainier Avenue between N Street and O Street and to the  
22 west of GP 12. Sampling Station 40 is located on Rainier Avenue near the corner of O Street and  
23 to the west of GP 12. Because the 1997 Action Memorandum’s reference to the ESI is vague and  
24 because the samples being compared appear to be from different locations, it is unclear whether  
25 this data truly indicates the presence of TCE where none was detected before.

26 The WSDOT contends that this data is insufficient for several reasons. First, the WSDOT  
27 contests the reliability of the 1996 GP 12 data because it is not from, or verified by data from, a  
28 commercial lab. The 113.15j ppb reading in 1996 is from a mobile field lab, which Tony C. Mathis

1 testified is less reliable than a commercial lab due to the mobility and size of the mobile lab and to  
2 the mobile lab's unstable power source. *See* 1048496-0070. There is no commercial lab data with  
3 which to compare the reading. *See id.* To demonstrate the risk of inaccuracy associated with  
4 mobile labs, the WSDOT points to GP 13. In 1996, the mobile lab detected 56 ppb of TCE, but  
5 the commercial lab did not detect any TCE at GP 13. *See id.* (Commercial lab data point is 1U.).  
6 This evidence casts some doubt on the reliability of the mobile lab data for GP 12. At trial, the  
7 United States did not offer a basis for relying upon the data for GP 12. Accordingly, the Court  
8 finds from credible testimony at trial that data from mobile labs is less reliable than data from  
9 commercial labs.

10 Second, the WSDOT contends that it is impossible to make true comparisons of data from  
11 a Geoprobe sample because such Geoprobe samples are one-time samples that cannot be retested.  
12 The WSDOT contended that there was no monitoring well or fixed data point installed to enable a  
13 true comparison. The United States did not point to similar data points or other evidence  
14 demonstrating that TCE was detected in areas that had previously reported non-detect levels.

15 Third, the WSDOT contends that the 113.15j ppb reading from GP 12 is merely an  
16 estimate that should not be relied upon. According to the key for Geoprobe data, "J" means that  
17 "the associated Numerical value is an estimated quantity because the reported concentrations  
18 were less than the contract required detection limits or because quality control criteria limits were  
19 not met." 1048496-0078. This explanation of the data provides reason to doubt the reliability of  
20 this data point. The United States did not offer other concrete evidence of migration to refute the  
21 WSDOT's position in this regard.

22 Fourth, the WSDOT contends that there is also data showing non-detect TCE levels in  
23 locations where TCE had previously been detected. The 1997 Action Memorandum notes this  
24 change in the data:

25 Historically, seeps in the Palermo neighborhood west of the Rainier Street houses are  
26 reported to have shown TCE . . . . March, 1997 sampling events of the seeps in the  
27 Palermo neighborhood west of the Rainier Street houses were unable to replicate the  
28 results and showed non-detect levels for TCE and PCE . . . .

1048496-0011.

1 Finally, the WSDOT contends that the EPA's reliance on this particular sample to justify  
2 installation of an air stripper is arbitrary and capricious because the sample reflects TCE levels in  
3 soil rather than groundwater. At trial, the WSDOT made this contention as part of its closing  
4 argument and did not offer factual support. The GP 12 sample in question was taken at a depth of  
5 25 feet. 1048496-0096. According to the ESI, shallow groundwater is located 25-70 feet below  
6 the surface. 1101484-0023. The Court therefore finds that the sample taken from GP 12  
7 represents a groundwater sample and not a soil sample.

#### 8 **iv. Conclusion**

9 The EPA's determination that the contamination plume was migrating and may imminently  
10 and substantially impact the uncontaminated wells, a critical aspect of its decision to initiate a  
11 removal action, is not supported by the administrative record. Evidence referenced in support of  
12 the 1997 Action Memorandum, by the EPA in the memorandum itself and by the United States at  
13 trial, demonstrates, at most, that the plume was moving in the general direction of the well field  
14 and had been for many years. There is no evidence of how much time installation of the air  
15 strippers as a remedial action, rather than as a removal action, would have required. There is no  
16 evidence that the actual or potential rate of the migration was such that the EPA did not have time  
17 to comply with the procedural steps required of remedial actions. Evidence in the record  
18 demonstrates that contamination levels were fluctuating, but evidence that contaminant levels  
19 were increasing in any particular location is weak. Finally, data from GP 12 are insufficient to  
20 demonstrate that the plume was migrating because they are based upon an estimation and they are  
21 uncorroborated by more reliable commercial lab data.

#### 22 **d. Weather conditions that may cause hazardous substances or pollutants or 23 contaminants to migrate or be released**

24 The EPA determined that weather conditions at the Site may cause the migration or  
25 release of contaminants. The majority of the EPA's consideration of the fifth factor consists of  
26 data showing contamination levels at various locations and depths. The only discussion of weather  
27 conditions is as follows:

28 The area experiences heavy rains which provide physical movement of pollutants and  
contaminants in the groundwater toward PWF. The PWF is in the 100 year flood plain of

1 the Deschutes river. The water plus sediment sample analyses results indicate volatile  
2 organic chemical levels in wells located on site that may migrate. Contaminants are  
3 observed in the shallow soils near the surface to the shallow ground water and in the  
4 ground water observed two to five feet BGS in Palermo Valley and 35 feet BGS in  
Southgate Mall. . . . The area commonly receives rainfall that enters the site surface area  
and the shallow and intermediate unconfined aquifers.

5 1048496-0026. The WSDOT maintains that this evidence, if sufficient, would render removal  
6 actions appropriate for any cleanup sites in the Pacific Northwest.

7 This discussion of the weather conditions at the Site does not reference any data. More  
8 specifically, the Action Memorandum does not reference data demonstrating that the rainfall at  
9 the Site is “heavy,” that the nature of subsurface soils had the effect of causing rainwater to  
10 migrate, that the effect of rainfall is to move contaminants, or that such movement of  
11 contaminants is in the direction of the well field. The Court therefore finds and concludes that the  
12 Action Memorandum fails to offer a satisfactory explanation for its conclusion that weather  
13 conditions may cause the contaminant plume to migrate or be released.

#### 14 **e. Conclusion on the EPA’s Decision to Conduct a Removal Action**

15 The EPA’s examination of the factors to be considered before instituting a removal action  
16 does not include extensive documentation of the EPA’s reasoning and the specific threats  
17 underlying that reasoning. While much of the EPA’s analysis references scientific evidence in the  
18 record, the evidence cited is often of little or no relevance to the overall question of whether the  
19 conditions at the Site were such that cleanup, in the form of a *time-sensitive removal*, was  
20 appropriate.

21 With regard to the first factor (actual or potential exposure to nearby human populations,  
22 animals, or the food chain from hazardous substances or pollutants or contaminants), the Court  
23 finds that the EPA’s findings are conclusory and unsupported by the record.

24 With regard to the second factor (actual or potential contamination of drinking water  
25 supplies or sensitive ecosystems), the Court finds that the EPA’s determination that the City could  
26 not meet demands for clean drinking water lacks support and is contradicted by evidence that the  
27 City installed new wells that more than made up for the lost pumping capacity of the  
28 contaminated wells. The Court finds and concludes that the EPA entirely failed to consider the

1 City's blending of well water and failed to determine whether water actually delivered to  
2 customers ever exceeded the MCL.

3 With regard to the fourth factor (high levels of hazardous substances or pollutants or  
4 contaminants in soils largely at or near the surface, that may migrate), the Court finds that the  
5 EPA relied primarily on one piece of data and that reliance on this data point alone was unjustified  
6 because the sample was analyzed only by a mobile lab and was merely an estimate. The EPA  
7 apparently made no effort to determine when the plume could be expected to reach the well field,  
8 did not consider how much time would be required to conduct a remedial action and whether it  
9 could afford to take such action, and has not demonstrated that the urgency of the situation  
10 rendered such inquiries impractical.

11 Finally, the Court finds that the EPA's consideration of the fifth factor (weather conditions  
12 that may cause hazardous substances or pollutants or contaminants to migrate or be released) is  
13 similarly conclusory and lacks support in the record. The Court therefore concludes that the  
14 EPA's decision to initiate a removal action at the Site, based upon its considerations of the factors  
15 in the NCP at 40 C.F.R. §300.415(b), was arbitrary and capricious.

## 16 **2. Characterization as Removal**

17 At the second step of the analysis, even if the EPA's removal action had not been arbitrary  
18 and capricious, the action taken by the EPA must be properly characterized as a removal action.  
19 *See W.R. Grace & Co.*, 429 F.3d at 1233. CERCLA and the National Contingency Plan divide  
20 response actions into two categories: removal actions and remedial actions. *Id.* at 1237. Removal  
21 actions are "time-sensitive responses to public health threats for which the EPA is granted  
22 considerable leeway in structuring the cleanup." *Id.* at 1228. Remedial actions, on the other hand,  
23 are "permanent remedies to threats for which an urgent response is not warranted." *Id.* at 1238.  
24 Distinguishing between removal and remedial actions is critical under CERCLA because the  
25 requirements for remedial actions are more detailed and onerous. *Id.* at 1226.

26 Whether the air strippers fall within the statutory definitions of removal action or remedial  
27 action is a question of statutory interpretation. *See id.* at 1233. In reviewing an agency's  
28 construction of the statutes it administers, the court engages in a two step inquiry. First, the court



1 determines whether Congress has directly spoken to the issue. If so, the court gives effect to  
2 Congress' unambiguous expression of intent. *Id.* at 1236. If not, the court employs the EPA's  
3 construction of the statute. *Id.* at 1236-37. At a minimum, the EPA's classification is afforded  
4 "modified deference." *Id.* at 1237. The Ninth Circuit has determined that Congress has not clearly  
5 differentiated between removal and remedial actions. *Id.* at 1241. The Court's analysis therefore  
6 begins at the second step to determine whether the EPA's classification of the well field air  
7 strippers comports with the EPA's definition of removal actions.

8 According to the EPA's interpretation, the difference between removal and remedial  
9 action is "whether the **exigencies** of the situation were such that the EPA did not have time to  
10 undertake the procedural steps required for a remedial action, and, in responding to such a  
11 **time-sensitive** threat, the EPA sought to minimize and stabilize **imminent** harms to human health  
12 and the environment." *Id.* (emphasis added). To determine whether the action was properly  
13 characterized as a removal action, courts may consider the time-sensitivity of the conditions at the  
14 site, the interplay between removal and remedial actions at a single site, and whether the action  
15 comports with the examples listed in 40 C.F.R. §300.415(e). *See id.* Courts may also consider the  
16 duration and permanence of the response, but these factors should be afforded less weight. *See id.*  
17 at 1244-45. This inquiry merits a "comprehensive view of the administrative record." *See id.*

#### 18 a. Time Sensitivity

19 The WSDOT contends that the threat posed by the contaminant plume was not time  
20 sensitive or immediate. This contention is primarily based upon the fact that contaminants were  
21 first discovered by the City in 1993 and that the EPA did not recommend a removal action until  
22 1997. The parties have not articulated how much more time installation of the air strippers would  
23 have required if done as part of a remedial action rather than as a removal. While the 1997 Action  
24 Memorandum does cite data from 1996 and 1997, it does not articulate why this data justified a  
25 removal, rather than a remedial action. The evidence that the contaminants were migrating or that  
26 contaminant levels were increasing, addressed in more detail above, is thin at best and does not  
27 suggest that the conditions at the Site justified an emergency response or that the EPA did not  
28 have time to take the procedural steps required of a remedial action. The Court therefore finds

1 and concludes, on the basis of the administrative record, that the well field contamination at the  
2 Site did not pose an imminent threat justifying a removal action.

### 3 **b. Interplay Between Removal and Remedial Actions**

4 Where an alleged removal is followed by remedial measures, the initial action  
5 may be properly characterized as a removal because the NCP contemplates progression from  
6 removal to a comprehensive remedial plan. *See W.R. Grace & Co.*, 429 F.3d at 1242-43. Here,  
7 the Action Memorandum seems to contemplate progression to remedial action: "This emergency  
8 action contributes toward the necessary steps to stabilize the site. The well head treatment and  
9 on-site soil vapor extraction treatment system options require continued operation and  
10 maintenance to stabilize contamination for an undetermined period of time." 1048496-0029. With  
11 respect to contaminated drinking water, the EPA's selected remedy was to continue operation of  
12 the air stripping system and establish a long term groundwater monitoring system. 1105220-0125-  
13 26. While the distinction between the air strippers as a removal and as a remedy is arguably  
14 superficial, installation of the air stripper did pave the way for ongoing water treatment at the Site.  
15 The Court therefore concludes that the interplay between the removal and remedial actions  
16 suggests that characterization of the air strippers as both a removal and a remedy was proper in  
17 this regard.

### 18 **c. Examples in 40 C.F.R. §300.415(e)**

19 The NCP provides a non-exhaustive list of activities generally considered removal actions:

20 (e) The following removal actions are, **as a general rule**, appropriate in the types of  
21 situations shown; however, **this list is not exhaustive** and is not intended to prevent the  
22 lead agency from taking any other actions deemed necessary under CERCLA, CWA  
section 311, or other appropriate federal or state enforcement or response authorities, and  
the list does not create a duty on the lead agency to take action at any particular time:

23 (1) Fences, warning signs, or other security or site control precautions--where  
24 humans or animals have access to the release;

25 (2) Drainage controls, for example, run-off or run-on diversion--where needed to  
26 reduce migration of hazardous substances or pollutants or contaminants off-site or  
to prevent precipitation or run-off from other sources, for example, flooding, from  
entering the release area from other areas;

27 (3) Stabilization of berms, dikes, or impoundments or drainage or closing of  
28 lagoons--where needed to maintain the integrity of the structures;

(4) Capping of contaminated soils or sludges--where needed to reduce migration of hazardous substances or pollutants or contaminants into soil, ground or surface water, or air;

(5) Using chemicals and other materials to retard the spread of the release or to mitigate its effects--where the use of such chemicals will reduce the spread of the release;

(6) Excavation, consolidation, or removal of highly contaminated soils from drainage or other areas--where such actions will reduce the spread of, or direct contact with, the contamination;

(7) Removal of drums, barrels, tanks, or other bulk containers that contain or may contain hazardous substances or pollutants or contaminants--where it will reduce the likelihood of spillage; leakage; exposure to humans, animals, or food chain; or fire or explosion;

(8) Containment, treatment, disposal, or incineration of hazardous materials--where needed to reduce the likelihood of human, animal, or food chain exposure;

or

(9) Provision of alternative water supply--where necessary immediately to reduce exposure to contaminated household water and continuing until such time as local authorities can satisfy the need for a permanent remedy.

40 C.F.R. §300.415(e) (emphasis added). The air stripping system does not appear to fall within this list. The plaintiff contends that the air strippers are analogous to the last example (provision of alternative water supply). In the Action Memorandum, air stripping is referred to as a “remedy alternative.” 1048496-0030. Consideration of this factor suggests that the air stripping system was not properly classified as a removal, but the exclusion of air strippers from a non-exhaustive list of possible removal actions is not particularly persuasive.

#### **d. Duration and Permanence**

Removal actions ordinarily last for only a short duration, but this is not always the case. *See W.R. Grace & Co.*, 429 F.3d at 1244. Similarly, removal actions may involve permanent solutions. Rather than classifying a temporary solution of short duration as a removal action, courts should look for “interim or partial response actions that are focused on immediate risk reduction” to distinguish removal action from remedial action. *See id.* 1245. Here, it is uncontested that the air stripping system was of long duration and appears aimed not at merely an interim or partial response but at putting in place a solution that would later form the bulk of the

1 selected remedial action. This factor weighs against classifying the air stripping system as a  
2 removal action.

3 **e. Conclusion**

4 Based upon the foregoing discussion, the Court concludes that the air strippers were  
5 improperly characterized as a removal action. The air strippers are not explicitly listed as an  
6 example of a removal action in 40 C.F.R. §300.415(e) and do not constitute an “interim or partial  
7 response.” These factors are of little weight as compared to the other factors and are of limited  
8 relevance to the Court’s conclusion.

9 While the Court concludes that the installation of the air strippers as a removal action  
10 paved the way for continued operation of the air strippers as a remedy, this factor too is of limited  
11 importance as compared to the time-sensitivity factor. The Court finds that the situation at the  
12 Site was not urgent or time sensitive and concludes that this factor is of paramount importance in  
13 determining whether the installation of the air strippers was properly classified as a removal.  
14 Having found that the threat was not time-sensitive, the Court therefore concludes that the  
15 installation of the air strippers was improperly characterized as a removal action.

16 **3. Award of Response Costs**

17 Having determined that the EPA’s decision to conduct a removal was arbitrary and  
18 capricious and that the air strippers were improperly characterized as a removal action rather than  
19 as a remedy, the Court’s next task is to determine what portion of the response costs attributable  
20 to the removal, if any, the WSDOT must pay. The standards for this stage of the analysis are  
21 governed by statute:

22 **(3) Remedy**

23 If the court finds that the selection of the response action was arbitrary and capricious or  
24 otherwise not in accordance with law, the court shall award (A) only the response costs or  
25 damages that are not inconsistent with the national contingency plan, and (B) such other  
26 relief as is consistent with the National Contingency Plan.  
27  
28

1 (4) Procedural errors

2 In reviewing alleged procedural errors, the court may disallow costs or damages only if  
3 the errors were so serious and related to matters of such central relevance to the action  
4 that the action would have been significantly changed had such errors not been made.

5 42 U.S.C. §9613(j)(3),(4). The WSDOT appears to concede that it is liable for certain monitoring  
6 costs but has not identified which of the costs associated with the air strippers should be  
7 disallowed. *See* Dkt. 101 at 19 (“[C]ertainly further monitoring of the water was appropriate. . . .  
8 It was not reasonable, necessary, or justifiable to incur several million dollars in cleanup costs . . .  
9 .”).

10 This case presents a somewhat unique question because it involves a disputed removal that  
11 was also implemented as a remedy. As presented to the Court, the record does not support a  
12 finding that the air stripper portion of the *remedial* action was improper or would not have  
13 occurred if not for the EPA’s installation of air strippers as part of the removal. In this sense, this  
14 case is distinguishable from *Washington State Dept. of Transp.*, 59 F.3d 793, in which the court  
15 denied recovery of all response costs for failure to comply with the NCP. Here, the EPA did  
16 comply with the NCP only with respect to the *continued operation* of the air strippers as a  
17 *remedial* action. The WSDOT is therefore in the difficult position of having to demonstrate what  
18 portion of the response costs is attributable only to the air stripper as a removal action and not as  
19 a remedial action. In other words, the WSDOT is charged with proving what harm it suffered as a  
20 result of the installation of the air stripper as a removal action when the installation of the air  
21 stripper as a remedy was proper. The WSDOT has not demonstrated which portion of the air  
22 stripper costs, if any, is attributable to only the removal.

23 The WSDOT apparently attempts to avoid contesting particular response costs by  
24 contending that the air stripper would have been deemed unnecessary as a remedy if the SVE  
25 system had been allowed to operate first to remove contaminants from the soil. Dkt. 154-1 at 7,  
26 167-1 at 8. At trial, Michael Riley testified that the plume may have dissipated on its own as a  
27 result of the SVE. This speculation is not a sufficient basis for disallowing all costs of the air  
28 stripper because it is simply impossible to know whether the air stripper would eventually have  
29 been installed as a proper remedial action without evidence that the EPA’s selection of the air

stripper as a *remedy* was itself improper or that the SVE would have completely eliminated any need for the air stripper. The Court is therefore unable to determine what portion of the response costs the United States may recover. The parties should be afforded an opportunity to provide briefing as to what portion of the response costs is recoverable in light of the Court's determination that selection of the air strippers as a removal action was arbitrary and capricious and that characterization of the air strippers as a removal was improper.

## **B. REMEDIAL ACTION**

The requirements for remedial actions are more detailed and onerous than those for removal actions. *See, e.g., W.R. Grace & Co.*, 429 F.3d at 1226; 40 C.F.R. §§300.425, 300.430. The french drain is the only remedial action contested by the WSDOT. Rather than contend that the EPA failed to comply with procedural requirements, the WSDOT contends that it should not be held responsible for costs associated with the french drain for two reasons: (1) the selection of the french drain was based upon inadequate data, rendering the decision arbitrary and capricious and (2) the costs of the french drain are divisible and not attributable to the WSDOT.

### **1. Arbitrary and Capricious or Otherwise not in Accordance with Law**

The EPA's selection of the french drain as part of the remedial action must be upheld unless the defendant demonstrates on the administrative record that the decision was arbitrary and capricious or otherwise not in accordance with law. *See* 42 U.S.C. §9613(j)(2).

In the Record of Decision, the EPA identified the risk of inhalation of PCE or TCE vapors emitted from standing groundwater:

The second RAO [Remedial Action Objective] for protection of human health is prevention of inhalation of vapors containing TCE or PCE potentially emitted by groundwater seepage (surface water) that ponds within the crawlspaces of the residences along the west side of Rainier Avenue. Sampling has shown that the standing water under some of these residences contains TCE and PCE. Modeling has demonstrated that an excess cancer risk from inhalation exists because vapors from this standing water have the potential to migrate into the living spaces of the homes at levels that can cause adverse health effects. . . .

Modeling indicates that lowering the groundwater table to a depth of at least 18 inches below the bottom of the crawlspaces will reduce potential risks to acceptable levels.

1105220-0054-55.

1 Testing in March of 1997 revealed no detectable levels of TCE and PCE in the standing  
2 water of residential crawlspaces. 1048496-0017. This testing was conducted with a  
3 photoionization detector ("PID"), which had an estimated detection limit of 1 part per million  
4 ("ppm"). 1101038-0260. This is well above the Acceptable Source Impact Levels:

5 [T]he PID may not have been able to read concentrations of chemicals in air if present  
6 below 1 ppm. Acceptable Source Impact Levels (ASILs) for PCE and TCE are  $1.1 \mu\text{g}/\text{m}^3$   
7 and  $.59 \mu\text{g}/\text{m}^3$ , respectively, as provided in WAC 173-460-150. For PCE, 1 ppm is  
8 approximately  $6,800 \mu\text{g}/\text{m}^3$  and approximately  $5,300 \mu\text{g}/\text{m}^3$  for TCE. Since the PID may  
9 have only been capable of reading at least 1 ppm in air, the potential presence of PCE and  
10 TCE in these homes could have been overlooked, even at the PSAPCA levels of health  
11 concern. The inability to detect indoor air concentrations less than 1 ppm in this air  
12 monitoring study represents a data gap; since the detection limit of 1 ppm was not  
13 sufficiently low enough [sic]. In addition, only one sampling event ever took place under  
14 the homes.

15 1101038-0260-61 (Final Remedial Investigation Report). The EPA used surface water  
16 concentrations of PCE and TCE to model and predict indoor concentrations of chemicals in air  
17 and determine the potential risk of inhalation of such chemicals. *See* 1101038-0275-81. To  
18 address this risk, the EPA chose installation of a french drain as a remedy. The french drain is  
19 designed to collect shallow groundwater, route it towards the Tumwater Municipal Golf Course,  
20 treat the water by aeration in a lagoon, drain the water through a stormwater ditch, and discharge  
21 the water into the Deschutes River. 1105220-0125.

22 The WSDOT has maintained that selecting a remedial action based upon an estimated risk  
23 of inhalation of volatile chemicals is arbitrary and capricious and contends that the EPA should  
24 have conducted further tests to confirm its estimations. Dkt. 101 at 14-15. While the EPA could  
25 have done more to determine the precise nature and extent of the risk of inhalation of volatile  
26 chemicals from water in crawlspaces, that alone does not demonstrate that the EPA was arbitrary  
27 and capricious. The EPA's selection of the french drain as a remedy to address the risk of  
28 inhalation of PCE and TCE was adequately supported by the record and was not arbitrary and  
capricious.

## 2. Joint and Several Liability or Divisibility

Even though the WSDOT fails to demonstrate that the EPA's installation of the french  
drain was arbitrary and capricious or otherwise not in accordance with law, the WSDOT may



avoid responsibility for some, or all, of the costs associated with the french drain if the divisibility doctrine applies. As a threshold matter, the Court must determine whether the WSDOT has properly preserved this defense.

#### **a. Waiver**

The plaintiff contends that the WSDOT is barred from asserting divisibility as an affirmative defense because it was not raised in the answer or the Pretrial Order. Dkt. 116-1 at 25. The divisibility doctrine is an affirmative defense that, if successful, precludes liability. *See U.S. v. Mottolo*, 26 F.3d 261, 263 (1st Cir. 1994). As such, it must be raised in the answer. *See Fed. R. Civ. P. 8(c)* (“In pleading to a preceding pleading, a party shall set forth affirmatively . . . any other matter constituting an avoidance or affirmative defense.”). In a section labeled “Affirmative Defenses,” the WSDOT’s answer states as follows: “The releases or threatened releases of hazardous substances at the site, if any, and the costs incurred by the Plaintiff, if any, were proximately caused by the actions and/or omissions of third persons over whom this Defendant had no control.” Dkt. 10-1 at 5. Though it does not employ the term “divisibility,” this statement is sufficient to put the plaintiff on notice of this defense. The Court therefore concludes that the WSDOT did not waive the issue of divisibility for failure to affirmatively plead the defense in the answer.

The plaintiff also contends that the WSDOT cannot raise divisibility as an affirmative defense because it was not identified in the Pretrial Order. Dkt. 116-1 at 25. Federal Rule 16(e) governs Pretrial Orders and provides as follows:

Pretrial Orders. After any conference held pursuant to this rule, an order shall be entered reciting the action taken. This order shall control the subsequent course of the action unless modified by a subsequent order. The order following a final pretrial conference shall be modified only to prevent manifest injustice.

Fed. R. Civ. P. 16(e). Pretrial orders play an important role in limiting issues for trial:

[A] party need offer no proof at trial as to matters agreed to in the order, nor may a party offer evidence or advance theories at the trial which are not included in the order or which contradict its terms. Disregard of these principles would bring back the days of trial by ambush and discourage timely preparation by the parties for trial.

*U.S. v. First Nat. Bank of Circle*, 652 F.2d 882, 886 (9th Cir. 1981). A pretrial order has the effect of amending the pleadings and controlling the course of litigation. *Northwest Acceptance*

1 *Corp. v. Lynnwood Equipment, Inc.*, 841 F.2d 918, 924 (9th Cir. 1988). A defendant must  
 2 enumerate its defenses, even where the plaintiff bears the burden of proof. *El-Hakem v. BJY Inc.*,  
 3 415 F.3d 1068, 1077 (9th Cir. 2005), *cert. denied*, 126 S.Ct. 1470 (2006); *Northwest Acceptance*  
 4 *Corp.*, 841 F.2d at 924 (defense waived where it was not raised in the pretrial order or before  
 5 trial).

6 A pretrial order should be liberally construed to allow theories at trial that are at least  
 7 implicitly included in the order. *See First Nat. Bank of Circle*, 652 F.2d at 886. A defense is  
 8 preserved if the pretrial order makes some reference to the defense such that the other party  
 9 should have been alerted to, and prepared for, assertion of the defense. *See El-Hakem*, 415 F.3d  
 10 at 1077. In its discretion, the trial court may modify a pretrial order based upon consideration of  
 11 four factors: (1) the degree of prejudice resulting from a failure to modify; (2) the degree of  
 12 prejudice resulting from a modification; (3) the impact of a modification at that stage of the  
 13 litigation on the orderly and efficient conduct of the case; and (4) the degree of willfulness, bad  
 14 faith, or inexcusable neglect on the part of the party seeking modification. *See id.* The trial court  
 15 may implicitly exercise this discretion by allowing a party to advance theories not contained in the  
 16 pretrial order. *See El-Hakem*, 415 F.3d at 1077.

17 In this case, the Pretrial Order did not explicitly identify divisibility as an affirmative  
 18 defense. *See* Dkt. 154-1 at 2 (affirmative defenses). The Pretrial Order identifies the WSDOT's  
 19 affirmative defenses as follows: "Defendants will pursue the following affirmative defenses: (1)  
 20 Plaintiff cannot show that a release of TCE from the WSDOT facilities caused the incurrence of  
 21 response costs. (2) Plaintiff's actions were inconsistent with the national contingency plan." *Id.*  
 22 Later in the Pretrial Order, the WSDOT makes the following contentions:

23 11. The historical review of potential sources is limited and failed to identify likely  
 24 additional sources of PCE and TCE. EPA failed to identify and consider former septic  
 25 leach fields located throughout the areas upgradient of the well field and failed to consider  
 the widespread historical uses of TCE.

26 ...

27 14. Biodegradation of TCE to PCE is occurring at the Site. TCE in the Palermo  
 Valley originated from the breakdown of PCE released at area drycleaners.

28 15. The contributions of TCE from the WSDOT MTL and former lab were not

1 sufficient to result in the concentrations of TCE detected in the Palermo Valley.

2 16. The Brewery City Pizza location is a source of PCE and/or TCE.

3 17. Releases of PCE and/or TCE at the Southgate Dry Cleaners and Brewery City  
4 Pizza locations are the primary source of TCE and PCE observed in the surface water  
5 seeps at the base of the Palermo Valley bluff and groundwater in the Palermo Well Field.  
TCE in the seeps and well field is a result of TCE being released at the Southgate Mall  
area, and/or some portion of the PCE has been converted to TCE by biological activity.

6 18. The amount of TCE in the soil at the WSDOT former lab is estimated to be 0.6  
7 pound based on EPA test results.

8 *Id.* at 8.

9 Liberally construed, these excerpts of the Pretrial Order implicitly encompass the  
10 WSDOT's assertion of the divisibility defense such that the United States should have been  
11 alerted to, and prepared for, the WSDOT's assertion of the defense at trial. Moreover, the Court  
12 implicitly modified the Pretrial Order at trial by allowing the WSDOT to offer evidence  
13 demonstrating that at least some of the TCE intercepted by the french drain is not attributable to  
14 the WSDOT facilities. The plaintiff had an opportunity to rebut the WSDOT's divisibility  
15 evidence and to respond to the divisibility argument. The divisibility defense is therefore properly  
16 before the Court.

### 17 **b. Divisibility**

18 Having determined that the WSDOT preserved the issue of divisibility, the Court must  
19 determine whether divisibility is appropriate in this case. Liability under CERCLA is joint and  
20 several, subject to the statutory defenses set forth in 42 U.S.C. §9607(b). *See, e.g., Carson*  
21 *Harbor Village*, 270 F.3d at 871 ("Once liability is established, the defendant may avoid joint and  
22 several liability by establishing that it caused only a divisible portion of the harm-for example, it  
23 contributed only a specific part of the hazardous substances that spilled."); *Montrose Chemical*  
24 *Corp. of California*, 104 F.3d at 1518 n.9. The imposition of joint and several liability can have  
25 harsh results and is not appropriate in every case:

26 CERCLA, as a strict liability statute that will not listen to pleas of "no fault," can be  
27 terribly unfair in certain instances in which parties may be required to pay huge amounts  
28 for damages to which their acts did not contribute. Congress recognized such possibilities  
and left it to the courts to fashion some rules that will, in appropriate instances, ameliorate  
this harshness. Accordingly, Congress has suggested, and we agree, that common-law  
principles of tort liability set forth in the *Restatement [(Second) of Torts]* provide sound

guidance.

*See Matter of Bell Petroleum Services, Inc. v. Sequa Corp.*, 3 F.3d 889, 897 (5th Cir. 1993). In other words, joint and several liability is not mandatory. *See id.* at 902 n.13. The *Restatement* provides as follows:

(1) Damages for harm are to be apportioned among two or more causes where

(a) there are distinct harms, or

(b) there is a reasonable basis for determining the contribution of each cause to a single harm.

(2) Damages for any other harm cannot be apportioned among two or more causes.

*Restatement (Second) of Torts* §433A (1965). As a polluting party, the WSDOT bears the burden of demonstrating that there is a reasonable basis for apportioning the harm. *See U.S. v. Alcan Aluminum Corp.*, 990 F.2d 711, 722 (2d Cir. 1993). This is a heavy burden to bear. *See O'Neil v. Picillo*, 883 F.2d 176, 178-79 (1st Cir. 1989). (“[R]esponsible parties rarely escape joint and several liability, courts regularly finding that where wastes of varying (and unknown) degrees of toxicity and migratory potential commingle, it simply is impossible to determine the amount of environmental harm caused by each party.”). The WSDOT may meet its burden by demonstrating the “relative toxicity, migratory potential, degree of migration, and synergistic capacities of the hazardous substances at the site.” *See Alcan Aluminum Corp.*, 990 F.2d at 722. Commingled harm may still be divisible and capable of reasonable apportionment. *See id.*

At trial, the crux of the WSDOT’s argument with respect to the remedial action was that the french drain intercepted contaminants that are not attributable to WSDOT releases. The Court’s findings with respect to whether the harm is divisible are bound by the Pretrial Order, in which the parties agreed to the following pertinent facts:

6. [B]oth TCE and PCE are present in seeps at the base of Palermo Bluff and in shallow groundwater in the residential area in the Palermo Valley just west of the Wellfield.

...

16. The ROD also called for the construction of a subdrain system to collect groundwater containing TCE and PCE that is surfacing in the area of residences at the base of Palermo Bluff.

...

1 24. The tank received waste, including TCE, for several months after its installation at the  
2 current MTL. The tank overflowed in 1970, apparently due to a plumbing mistake, and  
the quantity that overflowed from the tank is unknown.”

3 Dkt. 154-1 at 3-5.

4 The WSDOT offers three main arguments in support of its divisibility defense. First, the  
5 WSDOT contends that the amount of TCE released from WSDOT facilities was minimal. More  
6 specifically, the WSDOT contends that the concentration of TCE is one ounce at the current lab  
7 and .6 pounds at the former lab. Dkt. 154-1 at 8. The WSDOT does not explain how this data  
8 affects its liability for response costs associated with the french drain.

9 Second, the WSDOT contends that releases from WSDOT facilities travel at a very deep  
10 level in order to reach the well field and therefore would not be at a shallow enough level to be  
11 intercepted by the french drain. At trial, Michael Riley testified that the plume is forced downward  
12 at the unpaved cloverleaf near I-5 and that some of the TCE plume is captured by the french drain  
13 and some continues towards the well field. Even with the aid of expert testimony, the record does  
14 not demonstrate the extent to which contaminants captured by the french drain are attributable to  
15 the WSDOT or to other responsible parties.

16 Third, the WSDOT contends that TCE treated by the french drain is the result of  
17 degradation of PCE to TCE and not attributable to the WSDOT. Dkt. 167-1 at 9-11. At trial,  
18 Tony C. Mathis testified that at least some TCE at the Site may be attributable to degradation of  
19 PCE to TCE. Dimitri Vlassopoulos, Ph.D. testified on behalf of the United States that  
20 degradation of PCE to TCE was only a minor source of TCE. The Expanded Site Inspection  
21 Report notes the possibility that degradation of PCE was occurring. It notes that “[t]he  
22 commingled and stratified nature of the PCE and TCE plumes east of I-5 may be a result of . . .  
23 [d]egradation of PCE to TCE . . .” 1101484-0037. It also acknowledges that “[t]he absence of  
24 PCE detections in the City of Tumwater municipal wells may be explained using the following  
25 scenarios: (a) PCE has not reached the capture zone of the wells, or (b) PCE is completely  
26 degraded to TCE and related breakdown products by the time it is drawn at the wellheads.”  
27 1101484-038.

1 Even if the Court accepts all of these assertions as true, the WSDOT fails to meet its high  
2 burden to provide a reasonable basis for apportioning the harm. The Court finds that not all of the  
3 TCE at the Site is attributable to releases from WSDOT facilities. This finding is an insufficient  
4 basis for applying the divisibility doctrine, however. There is no evidence demonstrating how  
5 much of the contamination in the french drain is attributable to the WSDOT or how to fairly  
6 apportion some or none of the response costs to the WSDOT. The Court therefore concludes that  
7 the harm caused by the contamination at the Site cannot be reasonably apportioned and that,  
8 instead, joint and several liability for the entire harm is appropriate.

### 9 **C. DECLARATORY JUDGMENT**

10 In an action for recovery of response costs, “the court **shall** enter a declaratory judgment  
11 on liability for response costs or damages that will be binding on any subsequent action or actions  
12 to recover further response costs or damages.” 42 U.S.C. §9613(g)(2) (emphasis added). The  
13 Court should therefore enter a declaratory judgment that WSDOT is liable for response costs  
14 consistent with the National Contingency Plan to be incurred by the United States in responding  
15 to the release of hazardous substances at the Site, pursuant to Section 113(g)(2) of CERCLA, 42  
16 U.S.C. §9613(g)(2).

### 17 **D. CONCLUSION**

18 Aided, in part, by the parties’ briefing and argument, the Court has reviewed the Certified  
19 Remedial Administrative Record, Certified Removal Administrative Record, and certain  
20 supplemental materials attached hereto. From this review, the Court concludes that the EPA’s  
21 decision to conduct a removal action at the Palermo Wellfield, in light of the City’s actions in  
22 taking the contaminated wells offline, was arbitrary and capricious. In support of this holding, the  
23 Court finds and concludes as follows:

- 24 • The Court finds and concludes that the EPA did not offer a satisfactory  
25 explanation for its determination that there was actual or potential exposure to  
nearby human populations, animals, or the food chain.
- 26 • The Court finds that the EPA’s conclusions that the City could not meet demands  
27 for clean drinking water were unsupported by the record and concludes that this  
28 explanation for the decision to instigate a removal action runs counter to the  
evidence before the EPA.

- 1 • The Court finds and concludes that the EPA entirely failed to consider the ability  
2 of new wells to meet demands for clean drinking water.
- 3 • The Court finds and concludes that the EPA entirely failed to consider whether  
4 water delivered to Palermo Wellfield customers ever exceeded the MCL.
- 5 • The Court finds and concludes that the EPA entirely failed to consider that the  
6 City blended water from various wells in the well field before delivering water to  
7 customers.
- 8 • The Court concludes that the EPA did not offer a satisfactory explanation for its  
9 conclusion that there was an imminent risk of contamination of uncontaminated  
10 wells.
- 11 • The Court finds and concludes that the EPA did not offer a satisfactory  
12 explanation for its determination that weather conditions may cause hazardous  
13 substances or pollutants or contaminants to migrate or be released.

14 The Court also concludes that the EPA's characterization of the air strippers as a removal  
15 action was improper as a matter of law. In support of this holding, the Court finds and concludes  
16 as follows:

- 17 • The Court finds and concludes that the conditions at the Site were not time-  
18 sensitive and did not pose an imminent or urgent threat.
- 19 • The Court concludes that time-sensitivity is the most important factor to be  
20 considered in determining whether the EPA's classification of a removal was  
21 proper.
- 22 • The Court concludes that the interplay between the removal and remedial actions  
23 was proper.
- 24 • The Court concludes that air stripping is not an example of a removal action listed  
25 in 40 C.F.R. §300.415(e).
- 26 • The Court concludes that the duration and permanence of the air strippers suggest  
27 that the EPA's classification was improper.

28 The Court concludes that the EPA is entitled to recover an undetermined portion of  
response costs associated with the Palermo Wellfield Superfund Site removal. The exact amount  
of such recovery will be determined after further briefing by the parties. In support of this holding,  
the Court finds and concludes as follows:

- While the Court has determined that the removal action was inconsistent with the  
National Contingency Plan, the Court is not yet able to determine what portion, if  
any, of the EPA's response costs associated with the removal is inconsistent with  
the National Contingency Plan.



- The Court is not yet able to determine whether the EPA's actions would have been significantly changed if the EPA had not committed errors.
- The Court is not yet able to determine what portion of the response costs is associated with the air strippers as a removal action.

The Court will entertain briefing on this issue to determine the exact amount of removal response costs the WSDOT must pay.

The Court concludes that the EPA is entitled to recover all response costs associated with the Palermo Wellfield Superfund Site remedy. The exact amount of such recovery will be determined after further briefing by the parties. In support of this holding, the Court finds and concludes as follows:

- The Court concludes that the EPA's reliance on predictions and modeling to determine that the risk of inhalation of TCE and PCE in air justified a remedial action was not arbitrary and capricious or otherwise not in accordance with law.
- The Court concludes that the WSDOT properly preserved the divisibility affirmative defense by pleading it in the answer and implicitly including it in the Pretrial Order. The Court further concludes that the Pretrial Order was implicitly modified when, at the bench trial, the WSDOT was permitted to offer testimony in support of the divisibility defense and the plaintiff had the opportunity to rebut that evidence or offer evidence in response.
- The Court concludes that there is no reasonable basis for apportioning the harm at the Palermo Wellfield Superfund Site.
- The Court concludes that the WSDOT is jointly and severally liable for the response costs associated with the remedy.

Finally, the Court concludes that the United States is entitled to a declaratory judgment that WSDOT is liable for response costs consistent with the National Contingency Plan to be incurred by the United States in responding to the release of hazardous substances at the Site, pursuant to Section 113(g)(2) of CERCLA, 42 U.S.C. §9613(g)(2).

#### **V. ORDER**

Therefore, it is hereby

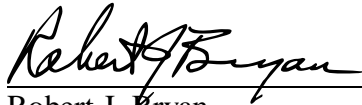
**ORDERED** that not later than March 7, 2007, the WSDOT shall file a brief responsive to the Court's findings and conclusions with respect to the costs associated with installation of the air strippers as a removal action. The brief should address which portion of the response costs, if any, the WSDOT may avoid in light of this Opinion. The response, if any, is due March 26, 2007.

1 The reply, if any, is due March 29, 2007. The Court will consider the matter on its March 30,  
2 2007, calendar and will enter judgment in favor of the United States for all response costs if the  
3 WSDOT fails to make a sufficient showing.

4 The Clerk is directed to enter a declaratory judgment in favor of the United States and  
5 against the Washington State Department of Transportation for response costs consistent with the  
6 National Contingency Plan to be incurred by the United States in responding to the release of  
7 hazardous substances at the Palermo Wellfield Superfund Site, pursuant to Section 113(g)(2) of  
8 CERCLA, 42 U.S.C. §9613(g)(2).

9 The Clerk of the Court is instructed to send uncertified copies of this Opinion to all  
10 counsel of record via the CM/ECF system and to any party appearing *pro se* at said party's last  
11 known address via the U.S. Mail.

12 DATED this 7<sup>th</sup> day of February, 2007.

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15 Robert J. Bryan  
16 United States District Judge  
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